

Solid Waste Rule Revision Workgroup Meeting

April 13, 2005

Summary

Attendees

Jim Bell, Missouri Dept. Natural Resources (MDNR), Solid Waste Mgmt. Prg. (SWMP)
John Bognar, Leggette, Brashears, & Graham, Inc.
Doug Doerr, Aquaterra Environmental Solutions, Inc.
Bill Duley, MDNR, Geological Survey Resources Assessment Division (GSRAD)
Mike Duvall, St. Charles County
Mimi Garstang, MDNR, GSRAD
Tom Gredell, Gredell Engineering Resources, Inc.
Martha Hildebrandt, Burns and McDonnell
Paul Hilpman, UMKC, emeritus
Jim Hull, MDNR, SWMP
Tim Kent, Kent and Associates
Martha Kopper, East/West Gateway
Beth Marsala, MDNR, SWMP
Gary Pendergrass, ESC Engineers and Architects
Peter Price, MDNR, GSRAD
Steve Sturgess, MDNR, GSRAD
Russ Seedyk, MDNR
Tom Wagner, St. Charles County

Purpose and Introductions

State Geologist, Mimi Garstang, welcomed everyone and explained the purpose of the workgroup meeting, to discuss revision of the portion of the Solid Waste Management Program's regulations dealing with geologic and hydrologic site suitability for proposed solid waste disposal facilities (landfills). All attendees were invited to introduce themselves and to share their goals for the workgroup.

Background

A slide show on the background leading up to the current need to pursue a rule revision was presented by Bill Duley. Emphasis was given to the previous solid waste permitting process and why it was changed to the current process. Conceptual slides highlighted some of the types of hydrogeologic settings that have been permitted, some of the problems that have resulted from siting solid waste disposal facilities in these settings and some of the rationale for excluding at least some settings from consideration as solid waste disposal sites. The presentation concluded with a series of slides depicting how 18 other states deal with site suitability.

Discussion of Site Suitability Issues

Discussion centered on the following topics:

1. What conditions make a site suitable or unsuitable?

- A.** A broadly held view seems to be that sinkhole plains or sites underlain by karst aquifers that are unmonitorable are not suitable for construction of a solid waste disposal facility. However, uncertainty exists as to how to define “karst” or “unmonitorable” as well as other terms yet to be identified.
- B.** The topic of “barriers” to migration was discussed with differing views as to what makes a barrier and how to define one.
 - 1.) A barrier can be defined by permeability.
 - 2.) It can be defined by distance.
 - 3.) A barrier can be defined by the degree of natural attenuation.
 - 4.) Barriers can be engineered either by constructing a low permeability liner or by changing groundwater gradients.
- C.** How does risk analysis play into site suitability? Should this rule be developed so that it is consistent with DNR’s new Risk Based Corrective Action (RBCA) rule?
- D.** The concept of a three tiered approach to site suitability was presented with: an **A**-category where no landfill should be considered, a **B**-category where an engineered approach could be used to augment the natural site conditions, and a **C**-category where only standard engineering practices (e.g. standard liner, leachate collection, gas collection system) apply.
- E.** The view was expressed that numerous factors should be considered in site suitability including such issues as underground mines, abandoned wells or other man-made hazards.

2. Should engineering be factored into the site suitability process?

- A.** One view holds that engineering should be considered as a solution to almost all site suitability concerns with the primary determining factor being cost.
- B.** An alternative view is that engineering should not be considered at all when failure of engineering controls (through inadequate design, inadequate construction, incomplete maintenance or simple degradation with time) will result in negatively impacting the public or the resource.
- C.** It was stated by some that the public does not trust engineering controls alone and that DNR staff have difficulty defending engineering controls as the only line of protection between waste and the public’s water or air.
- D.** The longevity of engineering controls at landfills is an issue. How long must they last to protect the public if they are used in lieu of natural conditions?

3. **How should different types of waste be considered with respect to site suitability?**
 - A. The opinion was expressed that fly-ash or other types of monofills should probably be treated differently than municipal solid waste.
 - B. Demolition waste is generally believed to be less of a threat than municipal waste but the degree of difference is open to debate.
 - C. Should flexibility of waste stream be considered in site suitability?
4. **How does difficulty of monitoring play into site suitability?**
 - A. As mentioned above, unmonitorable sites should be excluded since Subtitle D requires groundwater monitoring.
 - B. What about sites where monitoring, though effective, cannot be used to prevent irreversible harm to the environment?
5. **Miscellaneous**
 - A. Any criteria developed to determine site suitability should be well defined and predictable. Applicants should be able to tell if a site has significant liabilities without spending a lot of money.
 - B. New rule should allow as much flexibility as possible to allow for future changes in technology, and to incorporate what works for other states or entities.
 - C. Need for more information about what other states are doing and the rationale they use.

Stakeholders Discussion

The group generally agreed on the need to include as many perspectives in the stakeholder process as possible. The following groups or sectors were suggested for inclusion.

Applicants for permits
American Council of Engineering Companies of Missouri (ACECMO)
American Institute of Professional Geologists (AIPG)
Association of Engineering Geologists (AEG)
Attorneys representing applicants in the solid waste process
Attorney General's Office (AGO)
Citizen's group formed to oppose solid waste disposal facility
Coalition for the Environment
Current holders of solid waste permits
General public
Local government entities from both metro areas and more rural areas
Missouri Society of Professional Engineers (MSPE)
Missouri Waste Control Coalition (MWWC)
Sierra Club
Solid Waste Advisory Board (SWAB)
Solid waste districts

It was recommended that one person serve as the official representative for each sector. This would allow for a diverse group of stakeholders, while preventing any particular sector from dominating the process. People who are not selected as sector representatives would still be allowed to attend and speak, if they wish.

We also discussed keeping the current group members involved in the process. We could use some suggestions as to how the current group members could contribute most effectively in the future. Several options for your continued input exist.

- 1.) Almost all (if not all) of the workgroup members are potential representatives of one or more of the above stakeholders groups. Current workgroup members could participate through the stakeholder group or groups they represent.
- 2.) We could have a technical subcommittee to advise the larger stakeholder group.
- 3.) Some other option?

Other Assignments

- Workgroup members agreed that they will provide their own opinion of how site suitability should be determined as well as comments on this document. Please provide to tami.allison@dnr.mo.gov and we will try to summarize the thoughts of the group as well as we can for the first large stakeholder's group meeting.
- The Missouri Waste Control Coalition meeting in late June has been suggested as an open forum for the stakeholder's group to get additional input to the process. We would welcome suggestions on how we should solicit input through this conference.
- The date of the first meeting for the larger stakeholder group has not been determined as yet but will probably be held in late May. Consensus was to hold this meeting at the Elm Street Center in Jefferson City per the workgroup's recommendation of a central state location and the need for convenient parking.